

ABSTRACT OF THE DISCLOSURE

A grid formed with apertures of a predetermined shape is illuminated with light from a lamp and projected
5 onto a tear meniscus accumulated on the lower eyelid. The aperture image projected on the tear film is imaged by a CCD camera. The tear meniscus functions as a concave mirror, so that the magnification factor depends on the radius of meniscus curvature. A processor calculates the
10 magnitude of the grid image and evaluates the radius of meniscus curvature. Since the volume of lacrimal fluid varies depending upon the radius of meniscus curvature, the latter is used as a value representing the lacrimal fluid volume for dry eye diagnose purposes.